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Consultation on strategy for the next transmission and gas distribution price controls – RIIO-T1 and GD1 Impact Assessment

Document type: **Supplementary Annex RIIO-T1 and GD1 overview papers**

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Target audience: Consumers and their representatives, transmission companies, distribution network companies, generators, offshore gas producers/importers, suppliers, shippers, debt and equity investors, environmental organisations, government policy makers, independent gas transporters (IGTs) and other interested parties.

Overview:

RIIO-T1 and GD1 are the first price controls to use the new RIIO model under which Revenue is set to deliver strong Incentives, Innovation and Outputs. The RIIO framework has two overriding objectives: to encourage energy network companies to (1) play a full role in the delivery of a sustainable energy sector and (2) deliver long-term value for money network services for existing and future consumers.

This impact assessment follows the impact assessment that we published alongside our RPI-X@20 recommendations consultation in which we examined the potential benefits and risks associated with the application of the RIIO model to future price controls. This impact assessment considers these issues as well as the benefits and risks that will result from implementation of the proposals developed to date under RIIO-T1 and GD1, as set out in our initial strategy consultation documents. This is compared against the baseline of undertaking a price control in transmission and gas distribution using the existing RPI-X regimes as employed in TPCR4 and GDPCR1.

The impact assessment is undertaken at a high level and is largely qualitative at this stage. However, we will publish further impact assessments on individual issues and may seek to update this document over the course of the reviews.

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Context

Section 5A of the Utilities Act 2000 places a duty on the Gas and Electricity Markets Authority (the Authority) to carry out an impact assessment (IA) for any proposal that it considers in carrying out its functions that it believes to be important. We note that, in this context, the definition of 'important' is interpreted as a proposal which would involve a major change in our activities or significantly impact industry participants, the general public or the environment. We think that implementation of a new price control falls within these criteria. This is particularly the case given that RIIO-T1 and GD1 represent the first price controls to which we will apply the RIIO framework. To understand the impact that the new price control and adoption of the RIIO principles will have for consumers, we think it is prudent to carry out an IA.

As part of the RPI-X@20 review, we undertook an IA regarding the introduction of the RIIO model. In this document we update the thinking that was included within the RPI-X@20 IA to reflect the proposals that we have developed to date for RIIO-T1 and GD1. As such, this focuses particularly on potential benefits and risks/costs that at this stage we foresee may arise as a result of these policy proposals. This IA is published alongside our 'initial strategy consultation documents' which provide a detailed overview of the proposals that we have developed for RIIO-T1 and GD1.

We note that this is an early stage in the process to be undertaking an IA. However, consistent with the principles of better regulation and recognising that several of the key decisions regarding RIIO-T1 and GD1 will be taken as part of our March 2011 'strategy decision document', we consider an IA to be appropriate at this point in the process. In particular, it will provide transparency to the network companies on the process that we intend to follow for the development of their business plans. We will seek to carry out further IAs over the course of the reviews.

Associated documents

Main consultation papers

- Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper (159/10)
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper (160/10)
  http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

Links to supplementary annexes

- Consultation on strategy for the next transmission price control - RIIO-T1 Outputs and incentives
  http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20Outputs%20incentives.pdf

- Consultation on strategy for the next transmission price control - RIIO-T1 Tools for cost assessment
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20Cost%20assessment.pdf
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Outputs and incentives
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1%20outputs%20and%20incent.pdf
- Consultation on strategy for the next gas distribution price control - RIIO-GD1 Tools for cost assessment
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1%20costs%20assess.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Business plans, innovation and efficiency incentives
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20BP%20prop.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Financial issues
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20finance.pdf
- Consultation on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Uncertainty mechanisms
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20uncert.pdf

Links to other associated documents

- Handbook for implementing the RIIO model - Ofgem, October 2010
http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
- RIIO: A new way to regulate energy networks: Final decision
http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Decision%20doc.pdf
- Regulating energy networks for the future: RPI-X@20 Recommendations, Impact Assessment
http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Impact.pdf
- Approach and timetable for TPCR5: decision document (21/10)
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR5/Documents1/TPCR5%20Approach%20and%20Timetable%20-%20Decision%20Document%20-%20FINAL.pdf

A glossary of terms for all the RIIO-T1 and GD1 documents is on our website:
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/Glossary.pdf

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Executive summary

Background and context

RIIO-T1 and GD1 are the first price control reviews we are conducting, that are applying the principles of the RIIO model. Under RIIO, Revenues are set to deliver strong Incentives, Innovation and Outputs.[1]

This document complements our 'initial strategy consultation documents' by providing an overview of the key changes that will be implemented under RIIO-T1 and GD1 and the impact that these changes will have in terms of both benefits and risks. We note that this is an early stage in the process to be undertaking an impact assessment (IA). However, consistent with the principles of better regulation and recognising that many of the key decisions regarding RIIO-T1 and GD1 will be taken as part of our March 2011 'strategy decision document', we consider an IA to be appropriate at this point in the process. This will provide clarity to the network companies regarding our thinking and how this should influence their business plans.

Given the early stage at which we are carrying out this impact assessment, it is undertaken at a high level and is largely qualitative. However, we intend to undertake further specific impact assessments at later points in the review and, where possible, we will seek to quantify the benefits and costs once data is available.

Key aspects of the RIIO model

RIIO-T1 and GD1

As part of our 'initial strategy consultation documents'[2] we are consulting on a suite of proposals designed to achieve the overarching RIIO objective, which is to encourage energy network companies to:

- play a full role in the delivery of a sustainable energy sector
- deliver long-term value for money network services for existing and future consumers.

Network companies are likely to be required to undertake significant investment in coming years to facilitate the transition to a sustainable energy sector. Our proposals are designed to ensure that companies can finance the required investment in a

[1] For more information on the RIIO framework, please see 'Handbook for implementing the RIIO model' available at: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf
[2] Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf and Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

timely and efficient way, and are incentivised to deliver the required level of service at value for money for consumers.

This impact assessment

In this IA, we seek to assess the impacts and risks that would result from implementation of the suite of measures set out in our 'initial strategy consultation documents'. We assess these impacts and risks against the baseline of undertaking a price control in transmission and gas distribution retaining the existing RPI-X regimes as employed in TPCR4 and GDPCR1.

Our assessment highlights that there are potential positive impacts in a number of areas. We can categorise as follows.

- **Impacts on consumers:** We think that the biggest impact on consumers will be linked to the elements of the RIIO model that help to manage the increase in network charges that will likely result from the additional investment required to deliver a sustainable energy sector. In particular, the focus of the model on the longer term will encourage network companies to consider the impacts of their investment decisions over a longer timeframe, which is likely to lead to more efficient costs. We recognise that longer-term price controls are likely to lead to additional uncertainty but we are confident that the mid-period review and uncertainty mechanisms that we are proposing will address these concerns. The ability to take a proportionate approach to the assessment of business plans will also have positive impacts by allowing us and network companies to focus our efforts in the areas where they are most likely to deliver benefits. We anticipate further benefits from the regime as a result of the transparency that investors will have with respect to financeability arrangements.
- **Impacts on sustainable development:** We anticipate the outputs-led regime, which is linked to the overriding objectives of the framework, will have significant benefits for sustainable development. We have developed, in consultation with industry parties, a suite of primary outputs against which network companies will be required to ensure delivery. Combined, these primary outputs should deliver a safe, reliable system, an efficient connections process and high levels of customer satisfaction as well as improved environmental performance.

We recognise that there are a number of risks associated with the RIIO model, which could reduce the level of benefits achieved under RIIO-T1 and GD1. These include the potential for overspends in delivery, the potential for non-delivery of outputs, the possibility of increased regulatory risk due to the new financeability principles and the mid-period review as well as the possibility that certain elements of the framework may be incorrectly defined. We have implemented a number of mechanisms to mitigate these risks and do not consider that they pose a significant threat to the achievement of the overriding RIIO objectives.

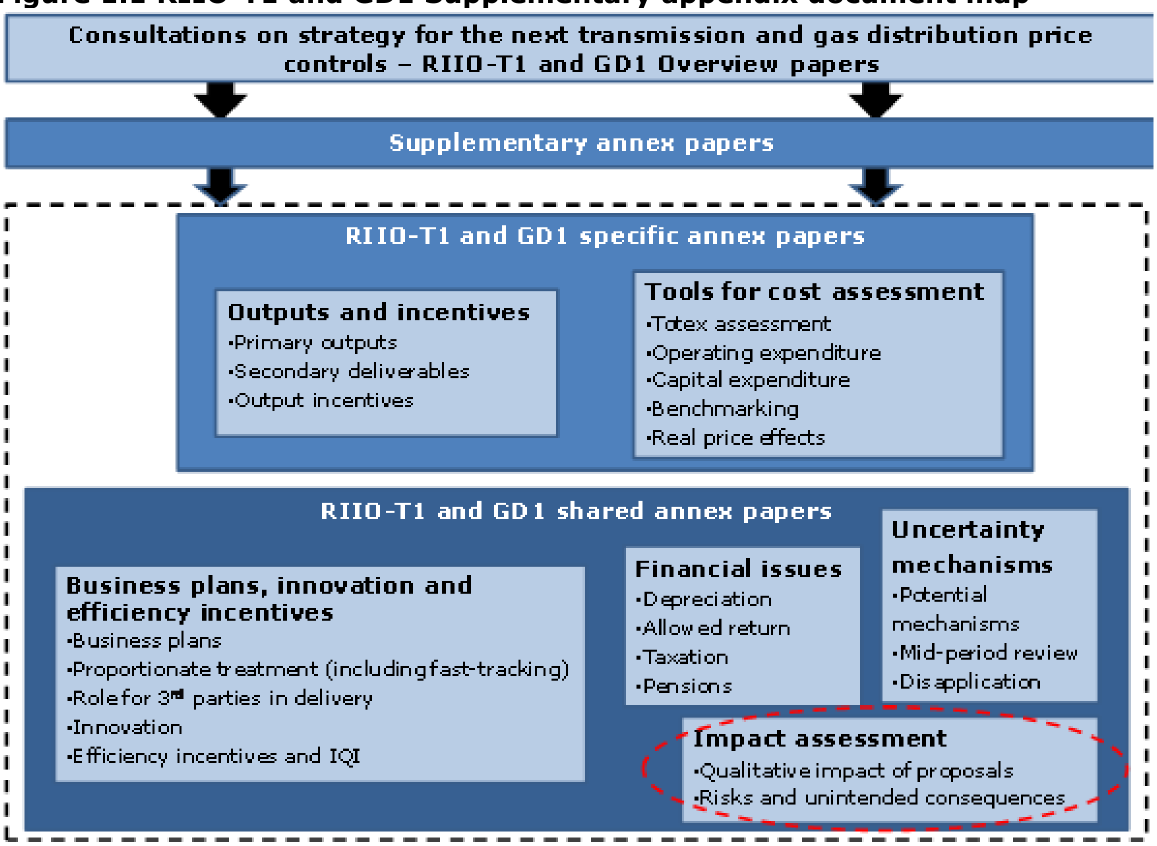
We would welcome stakeholder views on the assessment that we have undertaken in this document and whether this represents a realistic analysis of the impacts and risks that could be observed through implementation of RIIO-T1 and GD1.

1. Key issues and objectives

Chapter summary: This chapter begins by outlining the role that this IA has within the overall consultation that we are carrying out on RIIO-T1 and GD1. It goes on to provide an overview of the RIIO model, including its objectives and the elements of the framework that will help to deliver against these aims. It also outlines the options that are available to us to consider in terms of the future regulatory framework and sets out the approach that we have taken in carrying out this IA.

1.1. The next transmission and gas distribution price controls, RIIO-T1 and GD1, will be the first to reflect the new RIIO model. We are now consulting on the strategy for the two price control reviews. This supplementary annex, to the main consultation documents, sets out our current thinking with respect to the impacts and potential risks associated with implementation of the proposals set out in our 'Initial strategy consultation documents'[3]. Figure 1.1 below provides a map of the documents published as part of the consultations.

Figure 1.1 RIIO-T1 and GD1 Supplementary appendix document map*



*Document links can be found in the 'Associated documents' section of this paper.

[3] Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf and Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

Development of the RIIO model

1.2. The main driver of the RPI-X@20 review was the need to ensure that the regulatory framework remained fit-for-purpose particularly in light of the challenges that the network companies would face in facilitating the transition to a sustainable energy sector. During RPI-X@20 we undertook extensive engagement with a range of stakeholders to ensure that we had a solid understanding of the way that the RPI-X regime had performed since implementation. We also sought to identify potential challenges that network companies would face in the future and determine the form that the regulatory regime should take to allow them to effectively address these.

1.3. The outcome of this process was the development of the RIIO model, under which, **R**evenue will be set to deliver strong **I**ncentives, **I**nnovation and **O**utputs. To provide transparency regarding our expectations of the network companies we defined clear objectives for the framework. These objectives are aligned with our principal objective and wider statutory duties. As such, the objectives specify that the framework should be designed and implemented to encourage energy network companies to:

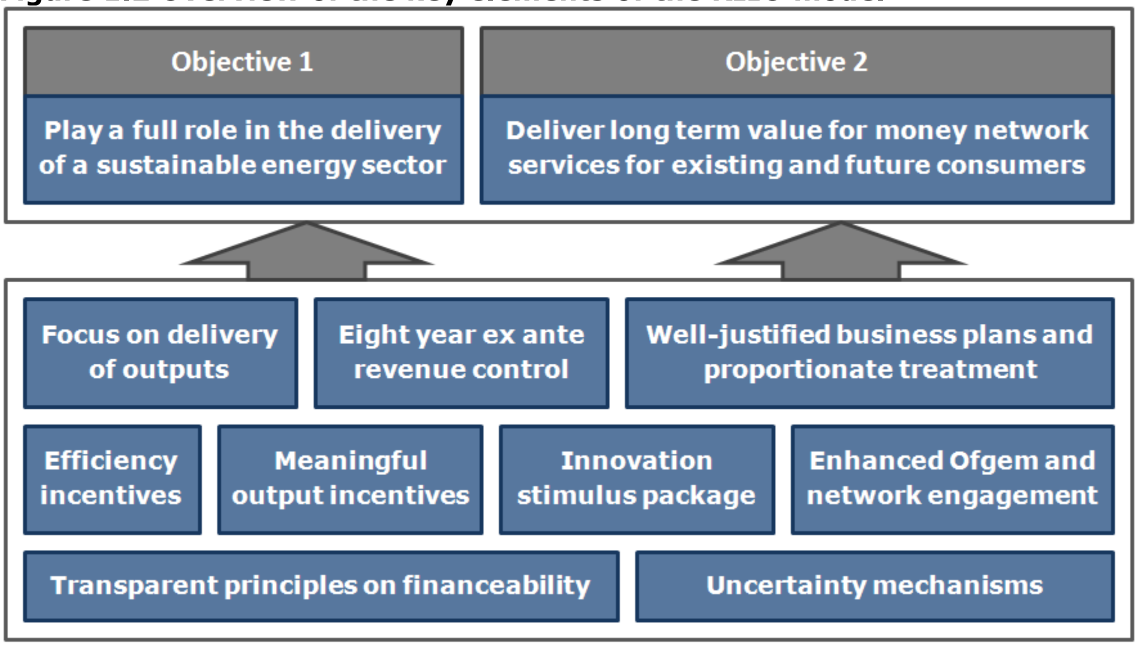
- play a full role in the delivery of a sustainable energy sector
- deliver long-term value for money network services for existing and future consumers.

1.4. The RIIO framework contains a number of mechanisms designed to facilitate the delivery of these objectives. As Figure 1.2 below illustrates the RIIO framework is an evolution of the RPI-X regime and builds on the successful elements of this framework, particularly some of the innovative aspects that were implemented as part of the fifth distribution price control review (DPCR5).

1.5. The RIIO framework maintains an ex ante approach that is informed by business plans and stakeholder engagement. It builds on the success of the low carbon networks (LCN) fund developed during DPCR5 with the introduction of an innovation stimulus package across all four energy network sectors. The framework also progresses further the successes achieved with respect to the development of outputs during DPCR5 and, in this respect, can be considered outputs-led. The outputs-led regime is complemented by the application of strong incentives to mimic the effects of competitive markets and encourage efficient delivery. To ensure that the outputs developed under the regime reflect the needs of network users and consumers the framework places a strong emphasis on stakeholder engagement, building on the progress made in these areas in the past.

1.6. RIIO includes a strong focus on the longer term to ensure value for money for existing and future consumers and this is underpinned by the use of long-term, well-justified business plans as well as the extension of the price control period from five to eight years. To provide clarity on the approach that we will take to determining the financial package, the RIIO framework incorporates a set of transparent financeability principles. A more detailed explanation of the way that the RIIO model will work is contained within the RIIO handbook.[4]

Figure 1.2 Overview of the key elements of the RIIO model



Options

1.7. On 4 October 2010, the Authority published its decision to implement a new regulatory framework using the package of measures contained within the RIIO model. As the Authority has already decided to apply the RIIO framework to the upcoming price control reviews, this IA examines the impacts and risks associated with the options available to us for implementation of the regime as part of the transmission and gas distribution price controls (RIIO-T1 and GD1 respectively). In the majority of cases the option will be to either:

- implement the new regulatory regime in line with the RIIO principles
- undertake a price control in transmission and gas distribution using the existing RPI-X regimes as employed in TPCR4 and GDPCR1.

1.8. In assessing the impact that our proposed approach to implementation of the various elements of the RIIO package may have, we compare the potential outcomes against the outcomes that may be observed in the event that the existing RPI-X regimes employed in TPCR4 and GDPCR1 were retained. This builds on the IA that we undertook as part of the RPI-X@20 review, which examined the benefits and costs/risks that we anticipated would result from implementation of the RIIO framework. This IA takes the analysis one step further by looking at the impacts and

[4] Handbook for implementing the RIIO model, available from: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf

risks that would result from implementation of the specific proposals developed for RIIO-T1 and GD1.

1.9. In undertaking this IA we have adhered to a number of additional principles to assess the available options for implementation of the RIIO framework.

- **Taking the package as a whole:** When considering the impact of implementing the new regime under the RIIO-T1 and GD1 price control reviews, we have sought to focus on the package as a whole, taking account of interactions between the various elements of the framework.
- **Qualitative assessment:** To provide transparency regarding our thinking, we have initiated this IA early in the process of the price controls. The nature of our proposals at this stage of the price control reviews, as set out in our 'Initial strategy consultation documents', means that it is difficult to quantify the costs and benefits associated with them. This is largely due to the fact that we are still consulting on the options to be introduced as part of our 'Strategy decision documents' in March 2011. Therefore, the IA is undertaken at a high level and is largely qualitative at this stage. However, we will carry out further IAs over the course of the reviews and, where possible, seek to quantify the benefits and costs once data is available.

Stakeholder views

1.10. As part of RIIO's enhanced engagement proposals we have sought to actively engage with a range of stakeholders including network companies, network users, consumer representatives, environmental groups, and other interested parties during the development of the RIIO-T1 and GD1 proposals. We value the input of these stakeholder groups and would welcome further stakeholder views on the issues set out in this IA. We would welcome views on this IA by 4 February 2011.

2. Impact of RIIO-T1 and GD1 proposals

Chapter summary

This chapter provides an overview of what we consider at this stage to be the potential impacts of the measures being proposed as part of the 'Initial strategy consultation documents' for RIIO-T1 and GD1.

Question 1: Have we correctly identified the impacts that RIIO-T1 and GD1 would have on consumers, competition, sustainable development and safety?
Question 2: Are there any additional impacts that RIIO-T1 and GD1 may have?
Question 3: Are there any specific areas in which we should seek to quantify the impacts of implementing RIIO-T1 and GD1 in a later IA?

2.1. We think that the RIIO framework will provide numerous benefits for consumers by more effectively facilitating the delivery of the objectives set out in Chapter 1 and thereby ensuring value for money for consumers as well as facilitating the delivery of a sustainable energy sector. We have structured this chapter according to the impacts that would be observed in a number of key areas from the implementation of RIIO-T1 and GD1 using the RIIO principles. The potential impacts are grouped according to the following areas.

- impacts on consumers
- impacts on competition (including effects on small businesses)
- impacts on sustainable development
- impacts on health and safety.

2.2. As set out in Chapter 1, during RPI-X@20, we published an impact assessment (IA) examining the benefits and costs/risks that could arise from implementation of the RIIO framework. We consider that many of the benefits identified in the RPI-X@20 IA are applicable in the context of RIIO-T1 and GD1. As such, some sections of this chapter begin with an overview of the benefits that we identified as part of the RPI-X@20 IA which we consider to also be applicable in the case of RIIO-T1 and GD1. The sections then go on to assess additional impacts that may be observed as a result of implementation of the specific proposals included in RIIO-T1 and GD1.

Impacts on consumers

2.3. We consider there are two main areas in which implementation of the proposals for RIIO-T1 and GD1 will positively impact on consumers.

- The first is that the proposals should ensure the delivery of network services at value for money for consumers. When set within the context that consumers are likely to see an increase in the level of their network charges, given that network investment is likely to be expanded in future years, it is important that these increases are managed to the best extent possible.

- The second is that there will be greater opportunities for consumers to engage in the price control process and influence the final form that the price control settlement takes. This should help to ensure that the price control better reflects their needs and therefore delivers in line with their expectations.

2.4. Each of these impacts is discussed in turn in the following section.

Management of increases in network charges

2.5. There are significant future challenges facing energy network companies and one of their biggest challenges will be to maintain security of supply whilst facilitating the transition to a low carbon economy. Due to these challenges we anticipate that network companies will need to undertake markedly higher investment. Given the magnitude of investment needed, we would expect an increase in consumer network charges, regardless of the regulatory regime in place and any actions we may take.

2.6. However, we are confident that the introduction of the RIIO model will, over the long-term, deliver lower average network charges for consumers than if we continued to use RPI-X regulation. This is largely due to the stronger incentives that RIIO places on the network companies to deliver at long-term value for money for consumers, but also because the RIIO framework is designed to encourage network companies to do more to deliver a sustainable energy sector. These value for money benefits can be grouped according to the following areas in which they arise:

- focus on the longer term
    - uncertainty mechanisms
    - mid-period review
- IQI and efficiency incentive rate
- innovation
- option to give third parties greater role in delivery
- proportionate treatment and fast-tracking
- financeability proposals.

2.7. The following sections provide an overview of the areas, identifying those benefits that were included within the RPI-X@20 IA as well as the specific benefits that are likely to arise from the development of policy proposals for RIIO-T1 and GD1.

Focus on the longer term

2.8. Under RIIO, the length of the price control period will be extended from five to eight years to encourage network companies to think on a longer-term basis. There are various other aspects of the framework which also encourage a longer-term focus. As a result network companies would be encouraged to consider the implications that their proposed expenditure for the coming period would have for required investment and associated efficiency beyond this control period. Table 2.1 below provides an overview of the areas that we identified, in the RPI-X@20 IA, where we think the regulatory framework will contribute to lower network charges.

Table 2.1 Benefits from longer term focus identified in the RPI-X@20 IA

Element of the regime	Benefit
Business plans	• Place a requirement on the network companies to complete business plans that consider expenditure needed beyond the coming control period.
Secondary deliverables	• Encourage network companies to take actions that bring benefits in future price control periods (eg enable future delivery at lower costs).
Efficiency incentives	• Encourage network companies to consider the likely lowest cost solutions over the longer term.

2.9. In our 'Initial strategy consultation documents' we have proposed a set of secondary deliverables and provided guidance to network companies with respect to the way that they can propose their own secondary deliverables as part of their business plan development. We also published business plan guidance alongside our July open letters and this stated that the business plan needed to be set out in a longer-term context both in terms of what is to be delivered and how. This guidance has been updated as part of our 'Initial strategy consultation document'.[5] We would expect the longer-term focus provided by the secondary deliverables and business plan guidance to have a positive effect on the way the companies run their networks, making them more cost efficient over a longer time horizon and potentially exposing efficiencies in delivery. Where these savings are passed onto consumers through the symmetric efficiency incentives, this would reduce the costs that they face.

2.10. A clear risk associated with the development of a longer-term control period for RIIO-T1 and GD1 is that the level of uncertainty regarding expenditure requirements and outputs needed over the course of the control is likely to be greater given the potential for conditions to change during the price control period. We have sought to address concerns regarding uncertainty by introducing a suite of uncertainty mechanisms to manage risk between network companies and consumers, including both general uncertainty mechanisms and a mid-period review of output requirements. Each of these mechanisms is discussed in turn below.

Uncertainty mechanisms

2.11. There is significant uncertainty with respect to the way that the energy networks will need to develop in the future particularly given the role that they will have to play in facilitating the transition to a sustainable energy sector. As set out above, this risk is increased under the RIIO model where the length of the price control has been extended from five to eight years. To guard against this uncertainty we have introduced provisions within RIIO-T1 and GD1 to allow uncertainty mechanisms to be used in certain circumstances. The presence of these mechanisms can have a number of positive impacts in terms of delivering lower average network charges for consumers. For example, by reducing the risks associated with

[5] Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/RIIOT1%20overview.pdf and Consultation on strategy for the next gas distribution price control - RIIO-GD1 Overview paper, available at: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/RIIOGD1%20overview.pdf

uncertainty that could be faced over the course of the price control, they could contribute to a lower cost of capital.

2.12. We recognise that the presence of uncertainty mechanisms within RIIO-T1 and GD1 could also have risks. In this respect, they could undermine efficiency incentives and increase complexity. We have identified potential uncertainty mechanisms as part of our 'Initial strategy consultation document', and have considered the principles set out in the RIIO handbook as part of an initial view on the needs for, and design of, these mechanisms. Companies will have an opportunity to make the case for these and other mechanisms as part of their business plans. Before including any mechanisms within the price control arrangements, we will need be satisfied that these are in the interests of consumers, taking account of both the potential downsides and the RIIO principles. This should ensure that uncertainty mechanisms are only deployed where network companies are unable to manage the uncertainty they face whilst preserving the ability of the network companies to finance their businesses and deliver value for money for consumers.

Mid-period review

2.13. The RIIO framework includes provisions to allow a mid-period review of outputs to take place to ensure that they remain applicable for the duration of the price control period. Stakeholders have highlighted concerns that the mid-period review of outputs may not be sufficiently tightly defined which could lead us to carry out a full price control review at this mid-period point. If this were to happen, the benefits of the longer-term price control would be lost. To address this risk, as part of the 'Initial strategy consultation documents' we have clarified that the scope of the mid-period review will be to consider:

- material changes to existing outputs that can be justified by clear changes in Government policy (eg if there was an increase in the 2020 carbon target)
- introducing new outputs that may be needed to meet the needs of consumers and other network users.

2.14. We have set out clear and transparent principles for the approach we would adopt at the mid-period review (including timescales). The review will involve an open consultation allowing stakeholders to contribute and comment on the proposals. In addition, we would undertake an initial assessment of the need for a mid-period review to determine whether it was required rather than automatically progressing the process. This will prevent unnecessary resource being committed to the review in the event that it is not required.

2.15. If, following the mid-period review, we considered changes to outputs to be necessary we would only alter other elements of the control to the extent required to accommodate the change to outputs, eg incentive mechanisms or the allowed return. In addition we would not retrospectively apply any amendments that were implemented as a result of the review. This would help to avoid undermining any commitments that we had given during the price control review.

IQI and efficiency incentive rate

2.16. The information quality incentive (IQI) was introduced in the fourth electricity distribution price control review (DPCR4) and refined as part of the most recent price control in electricity distribution (DPCR5). It was also implemented in the first gas distribution price control review (GDPCR1) and, during RPI-X@20, we decided to extend application of the IQI to all of the energy network sectors under the RIIO model.

2.17. The IQI is used to set the ex ante efficiency rate that network companies will face over the course of the price control. It is determined individually for each network company based on the expenditure requirements that they submit within their business plans and the extent to which these costs differ from our forecasts of 'efficient' expenditure that would be required over the course of the control period. In effect the efficiency incentive rate for a company would be based on the ratio between its expenditure forecast and our assessment of its expenditure requirements as well as the specific parameters of the IQI.

2.18. Where the IQI operates effectively, it would provide incentives to the network companies to submit more accurate expenditure forecasts within their business plans due to the potential to achieve a more favourable efficiency incentive rate. This could ultimately deliver benefits for consumers by ensuring the allowances approved for network companies represent value for money.

2.19. Our current thinking is that the initial efficiency incentive rate that network companies would face would be between 40 and 60 per cent. Depending on the efficiency incentive rate they were subject to, this would mean network companies would be able to retain between 40 and 60 per cent of any efficiency savings achieved but would be exposed to an equivalent proportion of any over-expenditure.

2.20. An efficiency incentive rate of this scale should create strong incentives for network companies to expose efficiency savings given the positive impact that this could have on their revenues. Consumers could also gain given that 40 to 60 per cent of the resulting savings should also be passed through to them. In addition, the strong efficiency incentive rate should create incentives on the network companies to avoid overspend given the significant proportion of these costs that they would face.

2.21. Under RIIO-T1 and GD1 we are proposing to amend the way in which the efficiency incentive rate is implemented. The first change will be to implement the efficiency rate through annual revenue adjustments which would be made two years after the expenditure is incurred, reflecting the availability of data. As a result the efficiency incentive rate would impact revenues more quickly and this should provide stronger incentives to network companies to seek out efficiencies. The second change will be that adjustments to the regulatory asset value (RAV) will be influenced by the level of the efficiency incentive rate. As such, the level of any over/under-spend added to/deducted from the RAV will correspond to the efficiency incentive rate. If a network company incurred overspend and the efficiency incentive rate was 40 per cent, 40 per cent of the value of this overspend would be added to the RAV. This would mean that the RAV would no longer track actual expenditure and should encourage further efficiency on the part of network companies.

Innovation

2.22. In the RPI-X@20 IA, we set out that there could be a number of benefits for value for money as a result of the elements of the RIIO regime that help to encourage innovation. One such element is the innovation stimulus package which is being developed in parallel to RIIO-T1 and GD1.[6] As part of the 'Initial strategy consultation documents' we are consulting on certain elements of the innovation stimulus package, including specifically the absolute amount and portion of project funding that would be available under the mechanism as well as the scope of this funding. The 'Initial strategy consultation documents' therefore contain a specific IA related to the innovation stimulus package.[7]

Option to give third parties greater role in delivery

2.23. In the RPI-X@20 IA we set out that having the option to involve third parties, through a competitive process, in the delivery of network assets could lower the costs that consumers face. Table 2.2 below, outlines the key areas in which we envisaged that these benefits may be observed.

Table 2.2 Benefits of a greater third party role set out in the RPI-X@20 IA

Element of the regime	Benefit
Allowing third parties to take responsibility for delivery	• If we were to use this option, new entrants could present innovative solutions with lower operating and financing costs.
Having the option of third party delivery available	• Having the option available would encourage existing network companies to seek out efficient solutions.

2.24. Enabling this option will require significant industry and regulatory commitment and potential benefits will vary across the network sectors. We are currently exploring the scope to take forward and develop this option further on a sector specific basis.

Proportionate treatment and fast-tracking

2.25. A key tool in the implementation of the RIIO framework as part of RIIO-T1 and GD1 is proportionate treatment. We anticipate that this tool will help us to deliver benefits for consumers. Proportionate treatment will allow us to focus our regulatory scrutiny where it is likely to add most value. Where a network company produces a

[6] The process that we are intending to adopt with respect to the development of the Innovation stimulus package is set out in the innovation stimulus open letter that we published in October, available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=285&refer=Networks/Policy
[7] Regulating energy networks for the future: RPI-X@20 Recommendations, Impact Assessment, available from: http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Impact.pdf

high quality business plan we will focus less resource on them, with their business plans subject to a lower level of scrutiny. In some cases, if network companies submit exceptionally well-justified business plans which are supported by evidence of consistently high levels of output delivery, it may be possible for their price control to be settled early. To reduce risks that we wrongly allow network companies to proceed with a significantly inefficient proposal, all business plans will be subject to a minimum level of scrutiny which. For instance, in all cases a random aspect of a company's plan will be subject to material regulatory scrutiny.

2.26. The scope for lighter-touch scrutiny and the potential to be fast-tracked would provide network companies with incentives to step up to the challenge of submitting realistic and well-justified business plans. In particular, the potential for network companies to focus less resource on the price control, achieve certainty on their plan earlier in the process, influence the outcome of their review and achieve positive reputational advantage would provide strong incentives to perform better over time and to submit better quality business plans. This would ultimately benefit consumers by ensuring resource was targeted to the areas in which it was needed.

2.27. This approach will also help implement 'better regulation' into our assessment. Our approach for assessing a well-justified business plan should enable regulatory effort to be focused where it is most likely to deliver benefits. In particular, it should assist in identifying areas of output delivery where costs could be reduced (or output delivery could be changed) leading to greater benefits for consumers. This benefit will be maximised if a network company that submitted a well-justified business plan was fast-tracked as this would allow us to devote more time to considering business plans that were poorly or moderately justified. Information should also be revealed from the well-justified plans to inform our scrutiny of less well-justified plans.

2.28. We recognise that the adoption of a proportionate approach will not be straightforward. To assist companies we have produced guidance that sets out the criteria with which business plans would need to be compliant to be considered well-justified. Using this guidance, combined with available comparative data and evidence regarding the performance of network companies with respect to the delivery of outputs, should reduce the risk of insufficient scrutiny of a poorly justified business plan. We also intend to undertake a minimum level of scrutiny for all of the business plans submitted by network companies which will reduce the risk of us wrongly allowing through a significantly inefficient proposal. We will refine our approach to assessment for our 'Strategy decision document' in March 2011.

2.29. We note that network companies may also perceive risks associated with fast-tracking as they may have concerns that, if they agree a settlement early other companies may subsequently receive a more favourable price control package. We do not consider this to be a significant risk given that we would expect fast-tracked companies to be able to demonstrate they are operating at the forefront of efficiency and to set the benchmark on financial issues. However, we are seeking views on whether there is a need for further protections for fast-tracked companies.

2.30. As well as the benefits outlined above, proportionate treatment should encourage well-justified plans which demonstrate effective stakeholder engagement.

Employing proportionate treatment should therefore encourage the achievement of additional benefits such as effective stakeholder engagement.

Financeability proposals

2.31. Our financeability proposals are an important part of the overall RIIO model. Under these proposals we have specified a set of long-term financeability principles which will provide investors with clarity over our intended approach. This should allow investors to provide the capital required to fund the estimated new investment in network assets required in the period to 2020. There are various elements of the financeability proposals upon which we have sought to provide clarity and these are discussed in the following sections.

Cost of debt

2.32. In our RIIO decision document we confirmed that we would be introducing indexation to the cost of debt. We considered this change to be particularly relevant given that we are extending the length of the price controls under RIIO. If the cost of debt were set using the traditional method, employed in TPCR4 and GDPCR1, we would need to provide headroom due to uncertainty regarding debt costs over a price control period. This headroom would result in additional costs for consumers. Moving to a longer price control would result in a larger headroom requirement due to the additional uncertainty that would be faced over a longer period. Indexation will allow the cost of debt to be set more closely to actual debt costs over time. It will also allow consumers to benefit in the event that debt costs fall and protect investors in the event that debt costs rise. It should therefore reduce costs for consumers and risk for investors. As the network companies use more debt finance than equity, the benefits for consumers could be substantial.

Notional gearing

2.33. In the RIIO handbook we set out that we would base the level of notional gearing on an assessment of the riskiness of network company cash flows. In doing this we will need to both balance, and ensure consistency between, a number of factors including the riskiness of the cash flows, performance against credit metrics and the cost of equity. Through this approach we will be able to set a more appropriate cost of capital, which should ensure that investment is appropriately rewarded and encouraged.

Asset life and depreciation

2.34. In the RIIO handbook, we set out that regulatory depreciation would be based on economic asset lives. We have engaged consultants to advise us on appropriate average technical and economic asset lives and are consulting on their recommendations. The use of economic asset lives will improve intergenerational equity by ensuring that consumers pay the appropriate charge for the use they make of the assets and provide more stability for investors.

Greater opportunities for consumer involvement in the price control

2.35. Under the RIIO model, we have included opportunities for consumers to play a greater role in the development of the price control through enhanced engagement opportunities with us. The RIIO model also places greater incentives on network companies to more effectively engage with their stakeholders as compared with the RPI-X regime. This will allow consumers to become more informed on the proposed plans of network companies and, in turn, influence the development of their business plans. Network companies will also be required to provide robust explanations as to why, if they have not accommodated stakeholder views, they determined that this was not feasible. Consumers would have the opportunity to influence our thinking with respect to the development of policy and in our assessment of network company business plans.

2.36. We think that, where these engagement mechanisms are managed effectively by both us and the network companies, this should provide greater opportunities for consumers to influence the final price control. Where this happens, the outcomes from the price control should more closely reflect the views and preferences of consumers and therefore deliver value for money in line with their expectations. Clearly there is some risk that not all groups of consumers are effectively represented through these processes. This places an onus on us to ensure that there is effective representation of all groups and to seek to actively involve parties where we become aware that they are underrepresented.

Impacts on competition

2.37. Our principal objective is to protect the interests of consumers, wherever appropriate, by promoting competition where this would best protect their interests or by other means if there is another manner to better protect those interests. It is therefore important that we consider the impact that implementation of RIIO-T1 and GD1 could have on competitive forces. We note that the energy network companies are not currently subject to competitive pressures, except at the extremes of the distribution networks where independent companies compete for the opportunity to extend the network and connect new customers, eg new housing developments. During RPI-X@20 we recognised that the extent for competition to develop further would be somewhat limited but highlighted that there may be benefits for consumers from extending these competitive pressures more broadly.

2.38. In this regard, we developed proposals in three areas where we thought competitive pressures could be drawn upon to deliver potential benefits for consumers. These areas are as follows.

- **Proportionate treatment:** As outlined above, our proposals on proportionate treatment will allow us to focus our assessment of network company business plans in the areas where it is likely to deliver most benefits for consumers. In addition, the potential to allow companies to be fast-tracked to their final price control settlement will provide incentives to network companies to deliver high quality business plans. This will, to some extent, draw on competitive forces as

companies would be aware of the comparisons being made between their own business plans and the business plans of other network companies.
- **Third party delivery of network assets:** During RPI-X@20 we noted that it may be possible to identify network projects where there would be benefits from giving third parties the responsibility to deliver and subsequently own network assets. We felt that potential benefits could arise as a result of innovative thinking and new sources of finance provided by the third party or due to the incentives that it would place on existing network companies to explore new ideas. Enabling this option will require significant industry and regulatory commitment and the potential benefits vary across the network sectors. We are currently exploring the scope to take forward and develop this option further on a sector specific basis.
- **Innovation stimulus package:** We recognise that significant levels of innovation are likely to be needed by network companies if they are to facilitate the transition to a sustainable energy sector at value for money for consumers. The RIIO framework therefore includes provisions to make available funding for innovative projects. To draw on competitive forces and expose potentially new approaches to delivery, the funding will also be open to third parties. The development of arrangements underpinning the innovation stimulus package is the subject of a separate IA published alongside the 'Initial strategy consultation documents'.

2.39. Although there are not substantial elements of the package specifically devoted to the development of competition, we have sought to include elements that will draw on competitive forces. Therefore although we do not anticipate that implementation of RIIO-T1 and GD1 will have significant positive impacts on competition, we do not foresee at this stage that there will be any negative impacts.

Impacts on sustainable development

2.40. One of the key drivers of the RPI-X@20 review was the need to ensure that the regulatory framework remained fit-for-purpose given the challenges that the network companies would face in the future, particularly those challenges associated with the transition to a low carbon economy. As set out in Chapter 1, encouraging network companies to play a full role in facilitating the transition to a sustainable energy sector is one of the two overriding objectives of the RIIO framework.

2.41. To translate this high level objective into meaningful outcomes against which network companies could seek to deliver, we developed an outputs-led regime. This regime is intended to highlight all of the areas in which the network companies would need to ensure delivery to play a full role in facilitating the transition to a sustainable energy sector. The regime is discussed in more detail in the following sections and we anticipate that it will deliver significant benefits for sustainable development.

Overview of the outputs-led regime

2.42. The key drivers of the RIIO framework are the objectives that we outlined in Chapter 1. These objectives provide a high level steer to the network companies about our expectations with respect to their performance. They are translated into an outputs led-regime through the development of the following elements.

- **A set of output categories:** The output categories capture the key areas within which consumers expect the delivery of high quality services in line with the objectives set out in Chapter 1. The output categories are: customer satisfaction, safety, reliability and availability, conditions for connections, environmental impacts and social obligations.
- **Primary outputs within these categories:** These provide measures against which we can monitor performance in each of the output categories during the price control.
- **Secondary deliverables (where needed):** These provide a means for network companies to flag up areas (as part of their business plans) where expenditure may be needed in the current price control period to ensure delivery of primary outputs in future periods. For example, where a large investment may be required to accommodate the deployment of renewable generation in the future.

Key benefits identified in the RPI-X@20 IA

2.43. One of the clear benefits that we identified within the RPI-X@20 IA was that the objectives of the regime would ensure that the network companies remained focused on the delivery of value for money to consumers whilst also considering the role they should play in the delivery of a sustainable energy sector. Where these objectives were effectively translated into outputs we considered that a number of benefits would be achieved. The key benefits are outlined in Table 2.3 below.

Table 2.3 Benefits from delivery of outputs identified in the RPI-X@20 IA

Element of the regime	Benefit
Output categories	• Provides transparency about the areas in which companies should ensure delivery.
Primary outputs	• Allows us to monitor delivery within each of the output categories. • Can be developed to reflect consumer views therefore helping to deliver value for money network services.

2.44. We consider that these benefits remain applicable in the context of the development of RIIO-T1 and GD1 using the principles of the RIIO model.

2.45. During RPI-X@20 we consulted on the output categories that could be included within the outputs-led regime. Respondents to these consultations were supportive of the categories that we had proposed and limited concerns were expressed with respect to the proposed structure.

2.46. In taking forward RIIO-T1 and GD1 our focus has been on developing a suite of primary outputs and secondary deliverables that are appropriate in each of the output categories. While the primary outputs will provide clarity on the performance of network companies in delivering against the overriding objectives during the current period, the secondary deliverables will ensure that we retain focus on the need to deliver against primary outputs in future periods. Where secondary deliverables are identified for delivery during the current period, this will ensure that the network companies engage in investment now which will ensure the efficient delivery of outputs in the future. The only limitation to this approach is that, given changing circumstances, it may not always be possible to identify where investment is needed now to ensure the delivery of primary outputs in the future. The following section provides an overview of the approach that we have taken in developing the suite of primary outputs and secondary deliverables.

The RIIO-T1 and GD1 primary outputs

2.47. Since initiation of the process to develop RIIO-T1 and GD1, we have developed a suite of primary output measures. These have been derived in consultation with interested stakeholders including through the Price Control Review Forum, the outputs Working Groups and the Consumer Challenge Group. Given that the outputs have been developed using the RIIO principles of enhanced stakeholder engagement we are confident that they will ultimately deliver the benefits identified in the high level RIIO model, outlined in Table 2.3 above. As part of our 'Initial strategy consultation documents', we are consulting on this suite of output measures with a broad range of stakeholders. This should highlight any potential concerns with our proposed suite of measures and allow us to reach a final policy position on a comprehensive set of outputs in time for the publication of our March 2011 'Strategy decision document'. The following sections provide an overview of the suite of output measures that we have developed and the impact that these measures may have.

Customer satisfaction and Social obligations

2.48. During RPI-X@20, we identified customer service and social obligations as two areas in which network companies should ensure delivery. Output categories were therefore included for each of these areas and in progressing thinking with respect to RIIO-T1 and GD1 we have developed primary outputs for each of these. The following sections provide an overview of the primary outputs that have been developed and the impacts they will have for sustainable development.

Customer satisfaction: RIIO-GD1

2.49. Under the existing RPI-X regime the level of customer service provided by gas distribution networks (GDNs) is monitored through a customer satisfaction survey and a guaranteed standard of performance relating to complaint handling. There is no financial reward or penalty associated with the level of performance observed through the customer satisfaction survey but compensation is payable to customers where network companies do not respond to complaints in a specified time period.

2.50. Although the service provided by the GDNs under this regime is generally considered adequate we think that further benefits for consumers could be achieved through a revision of the current arrangements. Under RIIO-GD1 we intend to build on the existing measures in place which have helped drive improvements in service.

However, we propose to amend the measures to align them with customer service indicators typically used by consumer-facing businesses in competitive markets. This would involve the inclusion of an additional measure to monitor the performance of the GDNs in understanding and responding to their stakeholders. We envisage that the inclusion of an incentive in this area would encourage GDNs to more effectively engage with their consumers. Ultimately this would have a positive impact in terms of ensuring that the outcomes delivered were more aligned with consumer expectations. For consistency and to allow comparisons of performance to be made, we are seeking to develop a similar approach for the measurement of customer service across both gas and electricity distribution.

2.51. This combination of output targets will form a broad measure of customer service and involve an assessment of GDN performance in three key areas:

- customer satisfaction
- complaints handling
- understanding and responding to stakeholders.

2.52. We propose to introduce financial incentives for each of these elements as we anticipate that this will encourage the GDNs to deliver outcomes that are aligned with consumer needs. We recognise that placing a financial reward or penalty on these measures could lead to the risk of a regime that is overly generous or punitive and, to mitigate these risks, we will work with industry to develop and trial the surveys that will underpin these output measures during 2011. Following these trials we will consult on proposed targets against which any rewards/penalties will be triggered. In developing the surveys and associated targets, we will also seek to learn lessons from the experience of the broad measure of customer satisfaction that is currently being developed, for implementation, as part of DPCR5.

RIIO-GD1: Social obligations

2.53. In our July 2010 open letter regarding the way forward on the second gas distribution price control review, we set out that there were two key social issues that we would consider in progressing RIIO-GD1:

- the Fuel Poor Network Extensions scheme under which GDNs provide assistance to fuel poor and/or vulnerable customers connecting to the gas network
- the steps that GDNs can take to help address the risks associated with Carbon Monoxide (CO) poisoning.

2.54. The provision of network extensions to the fuel poor is an important social obligation particularly given that it could help to alleviate the number of consumers that are in fuel poverty. We are therefore proposing to retain the scheme[8]. We are conscious, however, that the scheme should continue to represent value for money

[8] For further information on this proposal please see the 'Consultation on strategy for the next gas distribution price control - RIIO-GD1 Outputs and incentives', available from: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/GD1%20outputs%20and%20incent.pdf

for customers over the course of RIIO-GD1. In this respect, it should incorporate appropriate incentives to encourage GDNs to minimise costs. Where these incentives operate effectively, this will encourage GDNs to assess the costs associated with the implementation of alternative heating technologies and consider whether these would deliver better value for money than extending the gas mains. This could ultimately deliver benefits for consumers through the lower costs that they may face.

2.55. During the previous price control review for gas distribution we considered whether, as part of their core gas emergency service, GDNs should be required to address the risks associated with CO poisoning. In our final proposals we committed to setting up a working group to encourage the GDNs, with their stakeholders, to consider whether changes to operational procedures would be appropriate where GDNs were the first to attend a gas emergency, including any CO initiatives that may be of overall benefit.[9]

2.56. Since GDPCR1 a number of potential trials have been identified by the network companies which could help us reach a decision on what role the GDNs should play in CO safety in the future. We are working with the GDNs to implement a cross section of their proposed trials in the next few months on the basis that the results of these trials should feed into the upcoming price control review and assist GDNs in considering any CO proposals within their well-justified business plans. We note that the results of the trials will not be available to inform the business plans that the GDNs will submit in July 2011 but we expect the GDNs to include proposed CO initiatives at the time of the Final Business Plan submission in April 2012.

RIIO-T1: Customer satisfaction

2.57. At present, there are not any regulatory requirements on Transmission Owners (TOs) in gas or electricity to monitor levels of customer satisfaction. Under RIIO-T1 we are proposing to introduce a measure, which will provide a clearer picture of network performance in terms of customer satisfaction through surveying a range of different consumers of TO network services.

2.58. Our approach will involve the collation of a number of information sources to reflect customer satisfaction including survey evidence; complaint handling; and understanding and responding to stakeholders. We think that the primary output will have a positive impact in terms of ensuring that all customers receive a service that is aligned with their expectations. Although we propose to place direct incentives on the outputs related to customer satisfaction and understanding and responding to stakeholders, we do not think it would be appropriate to include a direct incentive on complaint handling. In this respect, we note that TOs only have a limited number of 'end customer' relationships and, as a result, we would only have a small sample on which to base any incentive related to complaints received. This could have a negative impact on the TOs by penalising them for their performance in a potentially small number of cases. We do, however, recognise the importance of monitoring this information to inform our understanding of performance in this area.

[9] Gas Distribution Price Control Review, Final Proposals, available from: http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf

2.59. There are risks that the network companies could be unduly rewarded or penalised for their performance in terms of customer satisfaction due to the limited historical information in this area. We note that this risk will be reduced to some extent in the case of National Grid as they have developed a TO survey in the past year and the results they have obtained can be used to improve our understanding of their performance in terms of customer satisfaction over time. We will continue to monitor National Grid's performance until the start of the price control in 2013. In addition, to mitigate the risk that the Scottish TOs may be unduly rewarded or penalised for their performance in this area, we will seek to develop a survey and collate evidence in the remaining period before April 2013. We are also considering whether transition arrangements may be needed for the Scottish companies recognising that they have not previously engaged in customer satisfaction surveys.

2.60. In developing the customer satisfaction survey, we also need to have regard to the complex arrangements in place for gas and electricity transmission. In this respect, we note the different roles performed by the System Operator (SO) and the TOs. The survey will therefore need to ensure there is a clear delineation between the SO and TO roles in order that the TOs do not get rewarded or penalised as a result of the provision of services by the SO.

RIIO-T1: Social obligations

2.61. We have engaged with stakeholders to determine whether there are any social obligations for which the TOs have a role in delivery. We have not identified any relevant obligations and, as such, have not proposed any primary outputs under the social obligation category in RIIO-T1. However, we are seeking the views of interested parties on whether it would be appropriate to place any social obligations on the TOs.

2.62. If we decide not to place any specific social obligations on the TOs as part of RIIO-T1 and relevant obligations are subsequently implemented during the course of the price control, it would be possible to reflect these through the mid-period review of output requirements.

Reliability and availability and safety

2.63. During RPI-X@20, we recognised that an important element in the delivery of a sustainable energy sector was the maintenance of a reliable system that would allow a high quality service to be provided to consumers as well as incorporating sufficient capacity to allow network users to utilise the system as needed. Linked closely to this, we also clearly understood the need for the system to be operated safely. Although both of these aspects of delivery are linked, we note that we have greater discretion in developing arrangements related to reliability and availability. In this respect, primary responsibility for the development of safety standards sits with the Health and Safety Executive (HSE). We recognise, however, that safety is an important factor in determining the costs that network companies will incur over the course of the price control and this is therefore an area of service that we need to consider in determining the appropriate level of their allowances.

2.64. As part of the development of RIIO-T1 and GD1 we have considered what requirements we should place on reliability and availability as well as safety. The following sections provide an overview of our current thinking in these areas and the impacts that our proposed approach would have on sustainable development.

RIIO-GD1: Reliability and availability

2.65. There are two key areas in which we propose to develop primary outputs for RIIO-GD1 to ensure ongoing reliability and availability of the gas distribution network. These are as follows.

- **Network condition and loss of supply:** The number and duration of supply interruptions are currently incentivised under the Guaranteed Standard scheme. We do not consider that a further incentive in this area is needed especially given that the number and duration of supply interruptions are much less common in gas than electricity. However, one of the precursors to loss of supply is the health and condition of the network and its assets. As such, we think there is merit in having arrangements in place to monitor asset health and the consequences of asset failure through risk metrics. A secondary deliverable in this area would allow us to evaluate GDN investment plans over the short and longer term and would therefore provide us with greater certainty that they could continue to provide a secure and reliable service over this period. This would positively impact sustainable development by ensuring the ongoing reliability of the system and security of supply.
- **Availability of capacity:** We propose to introduce a mechanism to incentivise the GDNs to avoid investing in capacity, which subsequently becomes redundant, for example as a result of optimistic demand forecasts. We are therefore assessing the potential to identify a meaningful network capacity output measure. We are also keen that GDNs and wider industry engage to consider where capacity can be most efficiently provided, whether that be through interruption or investment on the GDN or NTS network. This will have positive outcomes in terms of helping to ensure that capacity is available where it is needed but avoid the potential for consumers to pay more than is necessary for a reliable gas distribution network.

RIIO-GD1: Safety

2.66. As outlined above Health and Safety is primarily regulated by the HSE. As such, we propose to require that GDN primary outputs for safety relate to compliance with the HSE standards set out in the GDNs' safety case. In addition the working group identified specific requirements for "Repairs" and "Major Accident Hazard Prevention" which are also contained within the HSE safety case.

2.67. The mains replacement programme requires GDNs to replace all cast iron gas mains within 30 meters of domestic premises by 2030. This programme has been driven by the HSE as it is keen to ensure that the level of risk arising from gas mains in close proximity to properties is reduced. We are consulting on changes to amend the existing revenue driver which provides funding for replacement of pipes based on their size to a mechanism that incentivises companies to seek the least cost way to reduce iron mains risk[10]. This will ensure the HSE programme is delivered in an economic and efficient way with positive impacts for safety and value for money.

2.68. We are also proposing to introduce a suite of secondary deliverables providing information on the number of fractures and instances of gas in buildings as leading indicators for GDN network performance. Looking ahead, with the development of network risk metrics, we are looking to cover elements of safety, reliability and environmental output within their scope.

RIIO-T1: Reliability and availability

2.69. The differences between the gas and electricity markets require a different set of reliability outputs for electricity and gas transmission. These are outlined below.

2.70. Under TPCR4, electricity TOs are currently subject to the Network Reliability Incentive Scheme (NRIS) that provides them with rewards/penalties for over/under-performing against target levels of unsupplied energy (NGET) or the number of loss of supply events (SPTL and SHETL). Building on this scheme, we are proposing to introduce a primary output that will measure energy not supplied (ENS) by the TOs. This will ensure that all of the TOs are incentivised on a consistent basis and will therefore deliver similar levels of quality and security of supply. Under the scheme, TOs will be subject to symmetric financial incentives to encourage the delivery of a specified level of ENS. This will ensure that the TOs are rewarded for good performance and penalised for deteriorating performance levels. The introduction of these measures will positively impact consumers by ensuring that they continue to receive a high quality and secure service from the electricity TOs.

2.71. We are also proposing to introduce a suite of secondary deliverables to monitor overall network risk, building on the framework implemented as part of DPCR5. Given the role that TOs have in network planning and stewardship of their assets, this will provide incentives for them to take action in upcoming price control periods to ensure the ongoing delivery of outputs in future periods at value for money. As far as possible, we will seek to ensure that the measures are objective and take account of the various decisions taken by TOs that impact on network risk. Performance against specified levels of network risk will be assessed at the end of the price control period and financial rewards/penalties may apply where there is material over/under-delivery. A secondary deliverable in this area would allow us to evaluate GDN investment plans over the short and longer term and would therefore provide us with greater certainty that they could continue to provide a secure and reliable service in both periods. This would positively impact sustainable development by ensuring the ongoing reliability of the system.

2.72. We also consider it important to include an incentive to minimise constraint costs from electricity TO activities. As National Grid performs the role of both SO and TO in England and Wales, it can see the impact of the TO decisions that it takes in

[10] For further information on this proposal please see the 'Consultation on strategy for the next gas distribution price control - RIIO-GD1 Outputs and incentives'.

terms of the SO constraint costs that arise. However, no such link exists for the Scottish TOs. Therefore as part of the 'Initial strategy consultation documents' we are consulting on the introduction of a mechanism under which a portion of the costs arising from constraints on the system would be passed through to the Scottish companies on the basis of the proportionate impact that their actions had created. If such a mechanism is successful, this could mean a more efficient level of subsequent constraints and this could reduce the costs that consumers ultimately face.

2.73. In gas transmission, we propose that the primary output should effectively make use of the existing arrangements in place, with NGG required to comply with existing obligations to convey required gas volumes at system entry and exit points. We recognise that there is uncertainty about the required development of the gas transmission system in the future and therefore propose that a suite of secondary deliverables should be developed related to asset risk and system network flexibility. Similarly to transmission, this will help to manage the level of risk on the network and therefore contribute to the achievement of security of supply.

RIIO-T1: Safety

2.74. We recognise that the HSE is the principal regulator of safety and consider it to be important to support the functions that they perform. We therefore propose that the primary output for gas and electricity TOs with respect to safety should be to ensure compliance with legal safety requirements. We note that performance in this area may be complemented by the development of reliability and availability secondary deliverables related to asset risk.

Conditions for connection

2.75. During RPI-X@20 we recognised that network companies should be required to provide an efficient connections service on both the demand and supply side. On the supply side, this would ensure that they could connect generators, interconnectors and storage facilities and this would have important impacts on security of supply. Performance on connections, particularly in electricity transmission, could also have crucial impacts in terms of meeting the 2020 and 2050 targets through connecting renewables and other low carbon sources of energy. Where the network companies demonstrate high levels of performance in this area it could have significant positive impacts on the environment and the development of a low carbon energy sector.

2.76. As part of the development of RIIO-T1 and GD1 we have considered what the requirements for connection should be in both transmission and gas distribution. The following sections provide an overview of our current thinking in these areas and the impacts that our proposed approach would have on sustainable development.

RIIO-GD1: Conditions for connection

2.77. During the last gas distribution price control review, we introduced mandatory Gas Performance Standards[11] in relation to gas connections. GDNs are required to meet these standards in at least 90 per cent of cases.[12] Amongst other things, these standards place a requirement on Independent Gas Transporters (IGTs) and GDNs to quote for and complete works within specified timeframes. These provisions ensure that customers seeking to connect to the gas distribution network have a clear expectation of the timescales within which they will receive a quote for, and completion of, any work by the GDNs. If the GDNs fail to comply with these standards, they are subject to a financial penalty and this provides incentives to deliver a consistent connections service that is in line with customer expectations.

2.78. As part of RIIO-GD1 we are considering whether or not to continue with the existing arrangements. We have not developed concrete proposals in this area but are currently consulting on whether any additional standards for gas connection are required and whether further standards should be implemented recognising the potential growth in distributed gas through bio-methane and non-renewable sources. If further standards are implemented which improve connections performance in gas distribution, this would have positive impacts for security of supply and quality of service. It may also have benefits for the environment if high levels of low carbon bio-methane are subsequently deployed. We are also considering whether, in certain markets, competition may have developed sufficiently to allow the standards to be removed and whether there are merits in further aligning the arrangements in gas distribution with those in place in electricity distribution. If any such decisions were taken, it would have benefits in terms of better regulation.

RIIO-T1: Conditions for connections

2.79. The timely connection of generation needs to be reflected in RIIO-T1 outputs in both gas and electricity. A number of recent changes have been made in electricity and we are mindful of both these changes and further possible changes under Project TransmiT. As part of Project TransmiT we are currently consulting[13] on the commercial arrangements for connections and the general performance of TOs in the delivery of timely connections. Therefore, as part of the 'Initial strategy consultation' we are not providing details of our current thinking with respect to a primary output for connections in transmission. The questions we are asking via TransmiT should support the information already obtained through the stakeholder engagement that we have carried out in developing our thinking on a primary output for transmission connections. Combined, this information should provide evidence on whether we should place incentives on either the gas or electricity TOs (or both) to encourage them to deliver faster connection performance than current legal requirements.

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[11] The standards are set out in the Gas Standards of Performance Regulations 2008, available from: http://www.legislation.gov.uk/uksi/2008/696/pdfs/uksi_20080696_en.pdf

[12] Guidance on standards of performance and standard special licence condition D10 http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=222&refer=Networks/GasDistr/QoS

[13] For more information see 'Project TransmiT: A call for evidence, available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/Trans/PT and 'Project TransmiT - update letter – December 2010, available from: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=73&refer=Networks/Trans/PT

2.80. For us to take a decision to place any such incentives on the gas and/or electricity TOs, we would need to be confident that the benefits for sustainable development would outweigh any potentially negative impacts that this could have on prices and therefore consumers.

Environmental impacts

2.81. One of the key driving forces of the RPI-X@20 review was the desire to ensure that the regulatory regime remained fit-for-purpose within the context of the 2020 and 2050 targets on renewable deployment and carbon abatement. This therefore provided a clear rationale for the inclusion of a specific output category related to environmental impacts. The following sections set out the impact that we consider our proposed approach to the development of primary outputs on environmental impacts will have with respect to sustainable development.

RIIO-GD1: Environmental impacts

2.82. Gas losses (or shrinkage) from the GDNs currently account for one per cent of UK green house gas emissions. Existing incentive mechanisms to reduce levels of gas shrinkage are in place in the current gas distribution price control and we propose to retain this incentive. However, we are intending to include a higher carbon value within the mechanism and this should create stronger incentives to reduce shrinkage. Ultimately, if shrinkage levels fall, this will have a positive impact on carbon emissions from the system and, in turn, on sustainable development.

2.83. As part of RIIO-GD1 we are proposing to introduce measures to reduce barriers for bio-methane operators to connect to the gas distribution network. We intend to introduce an incentive to require GDNs to provide user-friendly information to bio-methane developers with respect to the process for obtaining a connection. This should provide transparency around the process and, combined with our proposed output on timely connections, should ensure a more effective connection process for bio-methane operators. This will have positive impacts on sustainable development by facilitating the connection of additional low carbon generation. We are also proposing to introduce a secondary deliverable requiring GDNs to report the capacity of bio-methane connected to their networks which will ensure we have clarity on the performance of GDNs in this area.

RIIO-T1: environmental impacts

2.84. Over the course of the coming price control the TOs, particularly in electricity, will have a significant role to play in facilitating the transition to a low carbon energy sector. In this respect, they will not only have a role to play in seeking to reduce the level of their own green house gas emissions but will also have a pivotal role to play in the connections of renewable and other low carbon energy sources. There are a number of ways that they can reduce their (and others) impact on the environment and therefore we are proposing output measures in the following areas.

Contribution to environmental and energy targets

2.85. Members of the outputs working group highlighted that the gains that could be achieved through a reduction in the carbon intensity of generation would significantly outweigh any benefits associated with a reduction in emissions from the TOs. We recognise that the electricity TOs have a pivotal role to play in connecting, and transporting the energy produced by electricity generators. The efficiency of the TOs in effectively connecting these parties and transporting the energy to final consumers will have an impact on carbon emissions, the environment and sustainable development more generally. We are therefore exploring the potential options available to develop a primary output measure that would provide an indication of the extent to which the TO was contributing to a low carbon economy. A primary output measure in this area could drive TOs to seek out new opportunities to contribute to the achievement of a sustainable energy sector. It may therefore highlight successful strategies and more effectively facilitate the transition to a sustainable energy sector.

Wider network impacts

2.86. We do not intend to include a specific primary output related to the impact of network operation on visual amenity. However, we recognise that the scale of future network expansion and the implementation of the RIIO framework will change the context within which TOs develop their network strategy. TOs who consult on their network development strategy as part of their well justified business plans should be able to identify and consider the broader costs and benefits, including local environmental impacts and potential mitigation options, at an early stage. We will work with DECC and other stakeholders to consider how further guidance might help companies and stakeholders consider the broader environmental costs and benefit, including potential mitigation options, and associated expenditure.

Direct network emissions

2.87. There are currently incentives on losses/shrinkage and methane venting which are intended to encourage reductions in levels of energy lost from the transmission system. At present, these incentives only operate on the SO through the SO incentives package. We recognise that there are elements of losses/shrinkage that are outside of the control of the SO and the TO but we note that both parties can engage in actions that would contribute to a reduction in the level of energy lost from the system. We therefore consider there is merit in assessing the potential for a losses/shrinkage incentive to be developed, which would impact both the SO and the TOs. We need to consider how this would work in practice in more detail but such an incentive would encourage the SO and the TO to play a full role in seeking to reduce emissions from the network, with a corresponding positive impact on sustainable development.

2.88. This primary output will also include an incentive on the TOs to minimise the level of carbon that they emit in the day-to-day running of their business. This will recognise the existing incentives to reduce carbon emissions that operate through the carbon reduction commitment (CRC). However, given that there are elements of the business carbon footprint that fall outside of the scope of the CRC, we think there is merit in incentivising reductions in additional emissions through a reputational incentive. This would build on the incentive on business carbon footprint that was introduced as part of DPCR5 and we anticipate that the form of the incentive will be very similar. While we recognise that this will have only marginal impacts on the level of carbon emissions, we think there is merit in encouraging the TOs to consider and effectively manage trends in the size of their business carbon footprint.

RIIO-T1 and GD1: Other benefits from the outputs regime

2.89. As part of their business plan development network companies will also need to submit evidence to support their proposed expenditure over the price control period. In their business plans the network companies would need to be able to demonstrate that their proposals were intended to facilitate the transition to a sustainable energy sector and represented long-term value for money for existing and future consumers. We would encourage the network companies to consider alternative ways of delivering against the primary outputs where this delivered long-term value for money. In this respect, although a new or innovative approach to delivery may increase costs during the coming price control period, this could be justified where it delivered efficiency savings in future periods.

Impacts on health and safety

2.90. The maintenance of safety standards is clearly of utmost importance when it comes to the energy networks. As outlined above, responsibility for regulation of this area of network operation primarily rests with the HSE and they have arrangements in place with the network companies to ensure the delivery of network services in line with predefined safety standards. However, we do recognise that investment in assets to ensure the ongoing safety of the network is exceptionally important and this is why we chose to include a specific output category regarding safety, which would form part of the outputs-led regime. We think that inclusion of this output category will ensure that appropriate focus is retained with respect to the important role that safety has within the overall regime and will therefore have positive impacts.

3. Risks and unintended consequences

Chapter summary

This chapter provides an overview of the general risks of implementing the RIIO-T1 and GD1 proposals and explains the mitigating actions that have been incorporated into the framework to manage these risks.

Question 1: Have we correctly identified the risks associated with implementation of RIIO-T1 and GD1?
Question 2: Are there other risks that implementation of RIIO-T1 and GD1 may have?

3.1. In this chapter we set out some of the perceived risks and potential unintended consequences associated with the RIIO framework and our proposals for RIIO-T1 and GD1. If these risks were realised they could lead to costs for consumers and ultimately reduce the benefits of the regime outlined in Chapter 2. Where possible, we have sought to implement protections to guard against these risks and, in the event that they were to materialise, we would have tools at our disposal to manage their impact. We think the benefits of applying the RIIO model in the context of RIIO-T1 and GD1, set out in Chapter 2, significantly outweigh any potential risks that may arise. This is particularly the case when these risks are considered within the context of the protections that we have put in place to mitigate them.

3.2. As part of the RPI-X@20 impact assessment (IA), we identified a number of risks and unintended consequences that could result from implementation of the RIIO framework. This chapter looks in turn at the issues identified in the IA which remain relevant given the additional work that we have taken forward with respect to RIIO-T1 and GD1. This includes the following potential issues:

- network companies do not deliver their primary outputs
- we over/underestimate the allowances required by the network companies
- the regime includes increased regulatory risk due to the presence of the mid-period review of outputs, concerns that the financeability proposals may make investment less attractive and the risk that insufficient consideration may be given to the needs of future consumers.

3.3. In this chapter we also highlight a risk of which we have become aware as a result of discussions with stakeholders and the further development of proposals for RIIO-T1 and GD1. This risk relates to the potential that we might inappropriately develop elements of the regime meaning that the benefits envisaged under RIIO are not delivered. This risk is discussed in more detail later in this chapter.

Non-delivery of the primary outputs

3.4. In the RPI-X@20 IA we noted stakeholder concerns that, where network companies sought to adopt new and innovative approaches, this could lead to the non-delivery of outputs. We have summarised the main issues in Table 3.1 below.

Table 3.1 Risks associated with the non-delivery of primary outputs

Risk	Mitigation under RIIO
Adopting innovative approaches that are not consistent with business as usual could lead to non-delivery of outputs.	• Thorough assessment of business plans with a high hurdle for companies to demonstrate their ability to deliver against the outputs. • Non-delivery of outputs will be penalised.

3.5. As set out in Table 3.1 above we continue to believe that the risk of non-delivery of outputs will be mitigated through a thorough ex ante assessment of the business plans and the implementation of strong rewards/penalties that are, where possible, specified upfront. These incentives will encourage the network companies to efficiently deliver through the potential to achieve rewards and dissuade non-delivery through the application of meaningful penalties. In a similar way to the efficiency incentives, the output incentives will be applied transparently (where possible, on a yearly basis) and therefore this should strengthen the incentives to deliver outputs. We also intend to monitor delivery of outputs over the course of the price control period using a balanced scorecard approach. This will provide a clear and simple way to convey information on the performance of the network companies and will highlight any potential problems with respect to output delivery as they arise.

3.6. We note that during the development of proposals for RIIO-T1 and GD1 we have given greater thought to the form that the business plans and associated assessment should take. The clarity and guidance that we are providing regarding what we expect from network company business plans should help to ensure that these business plans are well-justified and will deliver against required outputs. Where we have concerns about the business plans submitted by particular network companies, the transparent provisions associated with proportionate treatment would allow us to subject these business plans to greater scrutiny. This should ensure a more favourable outcome is delivered for consumers.

Over/under estimation of allowances

3.7. Stakeholders have previously expressed concerns that under the RIIO model network companies may be able to include overinflated costs for the delivery of outputs in their business plans. They suggested that information asymmetry, combined with the greater focus on outputs under RIIO, would mean that we may not have clarity on the likely costs that network companies would incur. In addition, the extension of the price control period could lead to a greater risk of network companies over/underestimating the costs that they could face over the coming period. We have summarised the main issues in Table 3.2 below.

Table 3.2 Risks associated with the over/underestimation of allowances

Risk	Mitigation under RIIO
We may agree to overestimated costs submitted by the company	• Outputs will provide visibility on what network companies propose to deliver and associated costs. • Longer-term business plans will allow us to assess network companies against a longer-term strategy. • We will use a variety of tools to assess the business plans to ensure reasonableness. • The IQI will help protect against inflated costs.
Increasing the price control from five to eight years could lead to base revenues being set too high/low due to forecasting difficulties	• We will calibrate the strength of the upfront efficiency incentives in light of this uncertainty. • We will develop uncertainty mechanisms to manage these risks without undermining the benefits of a longer-term control.

3.8. We have confidence that the outputs-led nature of the RIIO model will provide visibility on what the network companies intend to deliver in the coming period and, combined with the longer term business plans and secondary deliverables, will provide an understanding of their plans for the future. In our 'Initial strategy consultation documents', we have provided transparency on our expectations of the business plans and the way we intend to assess these as part of RIIO-T1 and GD1. We have a range of tools at our disposal, including the information quality incentive (IQI) and these will allow us to assess network company business plans, confirming our initial views through the use of additional mechanisms and supporting evidence.

3.9. We recognise that predicting the costs that network companies will face over a longer-term price control is likely to be difficult due to potential uncertainties about the way circumstances may change over a longer time period. In general, we expect network companies to manage the uncertainty they face but we recognise that there may be circumstances where changes to the regulatory settlement are needed. To allow for these cases, we have proposed a set of uncertainty mechanisms that can be called upon in circumstances where there is clear justification for this. In our 'Initial strategy consultation documents' we have clarified that the scope of the mid-period review will be to consider:

- material changes to existing outputs that can be justified by clear changes in Government policy, for example the carbon target increases
- introducing new outputs that may be needed to meet the needs of consumers and other network users.

3.10. Both the uncertainty mechanisms and the mid-period review will allow us to make amendments to network company allowances where circumstances change, either due to changes in general industry conditions or due to the need to establish new outputs or amend existing ones. We also note the significant consumer benefits that could be achieved through the combination of factors intended to encourage network companies to take a longer-term perspective. The extended price control period is just one of a number of important elements that will facilitate this outcome but we consider it to be an important aspect of the RIIO-T1 and GD1 packages.

Increased regulatory risk

3.11. In the RPI-X@20 IA, we highlighted a number of areas of the RIIO model that could lead to increased regulatory risk. These included risks associated with the mid period review of outputs, the financeability proposals and insufficient weight being given to the needs of future consumers. We address each of these in turn below.

Mid-period review of output requirements

3.12. Although during RPI-X@20, many stakeholders agreed that a mid-period review of outputs would help to address uncertainties regarding the requirements of the networks during an eight year price control period, they had concerns that it might not be sufficiently tightly defined and may therefore lead to a full price control review. The issue is outlined in Table 3.3 below.

Table 3.3 Risks associated with the mid-period review of outputs

Risk	Mitigation under RIIO
The mid-period review may not be sufficiently tightly defined and may lead to a full price review	• We would ensure that the grounds for the mid-period review were clearly set out as part of the final price control proposals.

3.13. Throughout RPI-X@20 we were clear that it would be important for us to be transparent about the issues that could be addressed, within a mid-period review of outputs, at the start of the price control period. As part of our 'Initial strategy consultation documents' we have set out that the scope of the mid-period review would be tightly defined. We have also included clear and transparent principles for the approach that we would adopt in undertaking any such review. In addition, we have provided commitment that we would not consider other aspects of the control as part of any mid-period review. To ensure that we did not initiate a mid-period review of outputs where it was not needed, we have committed to undertake an initial assessment of the need to use any such mechanism.

Risk that financeability proposals makes investment unattractive

3.14. In the RPI-X@20 IA we recognised stakeholder concerns with respect to our proposed approach to financeability and the impacts that this could potentially have on investor decisions. The issues are summarised in Table 3.4 below.

Table 3.4 Risks associated with the financeability package

Risk	Mitigation under RIIO
The financeability principles could deter investors from the sector	• The package provides commitment to investors. • The package provides a transparent set of principles that will increase predictability and reduce risk. • We will implement appropriate transition arrangements to ensure investors are not deterred from the sector.

3.15. We believe that our approach to financeability, rather than deterring investors will encourage investment, through the provision of a commitment to a set of transparent principles that we will use in determining the financeability package. We are also currently assessing our options for the development of appropriate transition arrangements to ensure that the cash flows of the network companies are not unduly impacted by the transition to these new arrangements. Our preference is to implement these transition arrangements over one price control period if possible.

Risk that insufficient weight given to needs of future consumers

3.16. Some stakeholders have raised concerns that the needs of future consumers may not be adequately represented when determining the price control settlements in RIIO-T1 and GD1, particularly as part of the enhanced engagement conducted by ourselves and network companies. The issues are set out in Table 3.5 below.

Table 3.5 Risks associated with representation of future consumer needs

Risk	Mitigation under RIIO
Enhanced engagement could give insufficient weight to the views of future consumers	• The Authority will continue to take a balanced approach to assessing the price control and the way it has considered the needs of existing and future consumers.

3.17. We note that this is a risk that would be encountered under any regulatory regime given that future consumers will not be able to take part in any process of stakeholder engagement. However, the Authority will consider future consumers' interests as part of its role in protecting future consumers as set out in its principal objective. We recognise that the Authority may not have perfect clarity regarding what the needs of these consumers will be in the future, but consideration of future consumer interests will ensure their needs are assessed as part of decisions taken.

Risk that elements of the regime are developed incorrectly

3.18. In response to the RPI-X@20 recommendations document many stakeholders expressed support for the rationale underpinning a number of aspects of the RIIO model. However, they noted that achieving benefits from this new regime was not linked to the principles developed for the RIIO model but rather was dependent on the way these principles were interpreted and applied in practice. We recognise that there are risks associated with the way that the regime is applied and the detail of the framework that we develop, eg with respect to the way outputs are defined.

3.19. To guard against the risk that RIIO-T1 and GD1 are not developed in a way that delivers the benefits envisaged from the RIIO model, we have sought to engage extensively with a range of stakeholders to understand their views and perspectives on the way we should implement the regime. We recognise the limited resources that some groups of stakeholders have to devote to these types of activities and therefore we have developed a range of forums to allow stakeholders to engage with the intent that this should ensure discussions are representative.

3.20. We also note that there are risks that, due to the limited resource that parties have to engage they may not have a thorough understanding of the issues that are being discussed. To ensure that our engagement with stakeholders is meaningful, we need to provide relevant information and additional clarification where this is required. This will involve not only ensuring the information we put together is in a user friendly format but also making time to engage in bilateral discussions and one-to-one catch ups as required.

4. Post implementation review

Chapter summary

This chapter sets out our current thinking on the costs that will be associated with implementation of RIIO-T1 and GD1. It also provides an overview of the approach that we intend to take to reviewing our implemented price control settlements for RIIO-T1 and GD1.

4.1. We note that it is not only important to think about the impacts and potential risks that would result from implementation of RIIO-T1 and GD1. We also need to consider the direct costs that would be incurred in implementing this package of measures and whether application of our proposals would be prohibitively expensive. In addition, to ensure that the benefits identified in Chapter 2 were achieved and the risks highlighted in Chapter 3 were minimised, we would need to undertake a post-implementation review of the respective regimes at an appropriate point in the future. In doing so, we should seek to learn lessons from the experience of the price controls that are implemented using the RIIO principles.

4.2. This chapter discusses both the costs that may be incurred in implementation of RIIO-T1 and GD1 as well as the approach that we will take in carrying out a post implementation review and learning lessons from our experiences of the regime.

Other impacts, costs and benefits

4.3. As with any proposed new regime, there is likely to be costs associated with the implementation of the RIIO framework in the form of RIIO-T1 and GD1. We do not anticipate that significant direct costs will be incurred in terms of the need to develop new IT programmes or invest in new technologies but costs may be incurred as a result of the need to transition to a new regime. In this respect, we think that costs could arise in the following areas.

- **Well-justified business plans:** The RIIO framework includes provisions for the network companies to submit well-justified business plans that consider the costs associated with different options for the delivery of required outputs. At least in the early stages of implementation of the RIIO model, we anticipate that the network companies will incur costs due to the need to consider these alternative options. This is likely to involve additional resource, both in terms of adapting to the new regime but also exploring alternative options. We think the benefits that would be provided in terms of exposing new solutions warrant this extra expense.
- **Enhanced engagement:** Under the RIIO framework there are provisions for both network companies and Ofgem to take forward enhanced engagement with a range of stakeholders. Effectively taking forward this type of engagement is likely to involve increased resource and cost from us, network companies and other interested stakeholders. This increased resource will be needed to prepare materials, assimilate views and attend meetings. If the outcome of these processes is the development of price control settlements that more closely reflect the views of stakeholders, this extra resource will be fully justified.

- **New requirements to undertake customer surveys:** As outlined in Chapter 2, under the outputs-led regime, the TOs will have new obligations to carry out customer satisfaction surveys. As such, they will incur costs associated with the development of the surveys, completion of the surveys and assessment of the results obtained. The network companies are not subject to normal competitive forces and therefore do not have natural incentives to regularly consider the needs of their consumers. Given the importance of customer satisfaction in any market, we think the costs incurred in this area would be outweighed by benefits.
- **Potential costs associated with the outputs regime:** We recognise that there are a number of elements of the outputs-led regime that remain undefined at present with a number of options still available. We note that, depending upon the decisions that we ultimately take in these areas, additional costs may be incurred by the network companies. We will be sure to consider any additional costs that may arise as a result of our decisions in these areas and will need to be satisfied that where costs are incurred these are offset by benefits delivered.

4.4. We recognise that direct costs of implementing the regime may arise in a number of areas. We do not think that these costs will be significant as compared with the benefits that are likely to be achieved from the implementation of RIIO-T1 and GD1 using the RIIO principles. We would also note that a large proportion of these costs would have been incurred in the event that the price controls were developed using the RPI-X regime. In addition, there are elements of the RIIO model that are likely to mean lower direct costs are incurred which will ultimately deliver benefits for consumers. For example, the use of proportionate treatment will allow both us and the network companies to focus our resources in the areas where they will deliver most benefits. This will ensure that resources are targeted in the most appropriate areas and should therefore deliver lower costs and associated consumer benefits.

Post-implementation review

Monitoring delivery of the objectives

4.5. Following implementation of RIIO-T1 and GD1 we would need to ensure that we fully understood the extent to which the objectives of the framework were being met. To achieve this, after implementation we would:

- monitor the performance of network companies in delivering against the primary outputs, and the extent to which this facilitated delivery of the objectives
- analyse the extent to which network companies have been encouraged to think longer-term by various elements of the price control framework
- understand network company performance in delivering well-justified business plans and the role this had played in exposing innovative operational solutions
- monitor the application of proportionate treatment and the changes that it facilitated in terms of the performance of the network companies
- assess the development and application of uncertainty mechanisms and the role they play in providing flexibility within the price control
- assess the extent to which the principles on financeability ensure the network companies are able to finance their activities at a reasonable cost to consumers.

4.6. The role that we will take in monitoring the outcomes of RIIO-T1 and GD1 settlements would allow us to better understand the extent to which they are delivering the benefits anticipated in this impact assessment (IA). It would also allow us to make any amendments to the framework in the future (eg for RIIO-ED1 in electricity distribution), where this may be needed to better facilitate delivery against the objectives.

Adapting the framework over time

4.7. Given uncertainty about the best way to develop the networks to facilitate the transition to a sustainable energy sector, it is important that the RIIO model is able to adapt to changing circumstances. This would enable us to refine regulatory arrangements over time, learning lessons from previous control periods, adapting to changing government policy and learning lessons from other sectors.

4.8. While we expect the overriding objectives and associated principles underpinning the RIIO model to be long lived, and adaptable to changing circumstances, the way the principles are implemented may need to be amended to reflect changing industry conditions. There are likely to be significant benefits where the regulatory regime is adaptable and these could be more effectively delivered where there is transparency about how this adaptation could take place. The following list outlines the principles with which we would seek to conform in adapting the regulatory framework over time. In particular, we would:

- consider the principles of better regulation[14]
- ensure our decision making was open and transparent
- ensure accountability to stakeholders
- take decisions based on robust and auditable evidence
- provide clear and reasoned explanations for changes that we made
- consider the impact of changes on regulatory commitment and credibility
- ensure the proportionality of any changes made.

4.9. We anticipate that where we adhere to these principles this should provide transparency to stakeholders with respect to the areas in which changes may be made and the rationale for these changes. It would also allow stakeholders to identify, and propose, areas in which adaptation of the regulatory regime may be appropriate in the future.

[14] The principles of better regulation are: transparent, accountable, proportionate, consistent, and targeted. Adhering to these principles is consistent with our duties under Section 3A (5A) of the Electricity Act 1989 and Section 4AA (5A) of the Gas Act 1986.

5. Conclusion

Chapter summary

This chapter sets out our conclusions regarding the impact that implementation of RIIO-T1 and GD1 could have on consumers, competition and sustainable development.

5.1. In this impact assessment (IA) we have explored the potential impacts that may be observed as a result of the implementation of our current proposals for RIIO-T1 and GD1. We recognise that we are currently at an early stage in the development of the price controls but consider that there is merit in assessing, at a high level the impacts that we currently anticipate may result from our current proposed approach. We intend to undertake further IAs later in the price control process once we have further clarity with respect to the approach that we will adopt for RIIO-T1 and GD1. Where possible, these IAs will seek to quantify the impacts that may be observed.

5.2. There are likely to be positive impacts in a number of areas as a result of the implementation of RIIO-T1 and GD1. In particular, we anticipate significant benefits for consumers resulting from the minimisation of the costs that they face associated with the transition to a sustainable energy sector. These benefits may stem from a number of elements of the RIIO regime including the longer-term focus, the suite of incentives that will be implemented, the use of proportionate treatment and the transparent financeability package. We also note that the RIIO model will provide greater opportunities for consumers to engage in the development of RIIO-T1 and GD1 and this should provide a route for consumers to influence the package and seek to ensure that it represents value for money.

5.3. We anticipate that implementation of RIIO-T1 and GD1 will also have a number of positive impacts in terms of sustainable development. The outputs-led regime places emphasis on the delivery of outputs that are consistent with the transition to a sustainable energy sector. These outputs cover social, environmental and economic issues as well as recognising the importance of the ongoing safety of the networks. Where the network companies effectively deliver these outputs it should facilitate the effective transition to a sustainable energy sector.

5.4. We recognise that there are a number of identifiable risks which could threaten the achievement of these benefits. These include, amongst other things, the risk that allowances are set inaccurately, the risk of output non-delivery and the risk that we may set elements of the framework incorrectly. However, we note that many of these risks would also be observed if a price control were being progressed in accordance with the principles of the RPI-X regime. In addition, we have put a number of mechanisms in place to mitigate these potential risks.

5.5. With any framework, there is real merit in adapting and evolving the regime over time to reflect past experience and changing circumstances and this is an approach we are seeking to take with respect to the RIIO model.

Appendices

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Appendix 1 – Summary of questions

CHAPTER: Two

Question 1: Have we correctly identified the impacts that RIIO-T1 and GD1 would have on consumers, competition, sustainable development and safety?
Question 2: Are there any additional impacts that RIIO-T1 and GD1 may have?
Question 3: Are there any specific areas in which we should seek to quantify the impacts of implementing RIIO-T1 and GD1 in a later IA?

CHAPTER: Three

Question 1: Have we correctly identified the risks associated with implementation of RIIO-T1 and GD1?
Question 2: Are there other risks that implementation of RIIO-T1 and GD1 may have?